

REMARKS

The Examiner is thanked for the performance of a thorough search.

No claims have been amended, canceled, or added. Hence, Claims 1-6, 13-25, 39-44, and 48-69 are pending in the present application.

Each issue raised in the Office Action mailed May 23, 2008 is addressed hereinafter.

I. ISSUES RELATING TO THE CITED ART

A. INDEPENDENT CLAIM 1

Claim 1 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Fry, U.S. Patent Application Publication No. US 2003/0159112 ("FRY") in view of Sijacic et al., U.S. Patent Application Publication No. US 2002/0184145 ("SIJACIC"). The rejection is respectfully traversed.

Claim 1 comprises the features of:

while an XML processor is performing a validation operation on an XML-based input stream, **wherein the XML processor is configured to send validated XML data to an application**, performing the steps of:
while validating a particular XML element in said XML-based input stream, causing said XML processor to generate one or more messages that indicate to the application how the application is to process said particular XML element, by identifying one or more annotations that are associated with said particular XML element; and responding to a request for information about said particular XML element by providing said one or more messages.

Thus, Claim 1 comprises the features of: **while an XML processor is performing a validation operation on an XML-based input stream**, where the XML processor is configured to **send validated XML data to an application**, performing the steps of: (1) **responding to a request** for information about said particular XML element by providing said one or more messages; and (2) causing the XML processor to generate the one or more messages while validating a particular XML element from the stream, where the **one or more messages**

indicate to the application how the application is to process the particular XML element by identifying one or more annotations. It is respectfully submitted that these features of Claim 1 are not described or suggested by FRY and SIJACIC.

Responding to requests while performing a validation operation

The Office Action asserts that the feature of Claim 1 of **while an XML processor is performing a validation operation on an XML-based input stream ..., responding to a request for information about said particular XML element by providing said one or more messages** is described by in SIJACIC. This assertion is incorrect.

In general, SIJACIC describes a system that is operable to process messages in XML format. (See SIJACIC, paragraph [0009].) For example, an XML servlet is used in conjunction with a billing process that collects request messages, which have been converted into XML format usable by the XML servlet and which include a tag indicating the required format for a response message. (See SIJACIC, paragraph [0010].) The XML servlet may validate a request message to ensure that the message conforms to a Document Type Definition (DTD). After being validated, the request message is parsed and converted into a DOM, and is then passed to the billing process. The billing process produces a response, which is converted into a DOM and is then transformed into a response message that has the format indicated by the tag in the corresponding request message. (See SIJACIC, paragraph [0011].)

Significantly, however, SIJACIC does not describe or suggest responding to requests with messages that are generated WHILE an XML element from an XML stream is BEING validated, as featured in Claim 1. At most, SIJACIC describes an XML servlet that is operable to validate that a request message conforms to some XML format that is described in a DTD; however, SIJACIC does not describe that the XML servlet responds to requests WHILE the

request message is being validated. (See, for example, SIJACIC, Figs. 5-6 and paragraphs [0058]-[0059].) Rather, SIJACIC clearly describes that the validation logic in the XML servlet ensures that a request message conforms to a particular DTD and includes data that is in the correct locations, context, and comprises correct information; if the request message does not conform to the DTD, the request message is denied processing. (See SIJACIC, paragraph [0060].) Thus, the validation logic in SIJACIC's XML servlet is basically used only to make a determination about the validity of a request message. Significantly, however, this use of the validation logic in SIJACIC does not (and does not even need to!) respond to any requests while a determination about the validity of a request message is being made.

In contrast, Claim 1 comprises the feature of while an XML processor is performing a validation operation on an XML-based input stream ..., responding to a request for information about said particular XML element by providing said one or more messages. It is quite clear that this feature of Claim 1 does not and cannot possibly correspond to a validation logic that makes a determination about the validity of a request message, as described in SIJACIC. For this reason, SIJACIC does not describe the above feature of Claim 1.

Responding to requests with messages indicating how an application is to process an XML element that is being validated

Claim 1 comprises the feature of:

while an XML processor is performing a validation operation on an XML-based input stream, **wherein the XML processor is configured to send validated XML data to an application**, performing the steps of:
while validating a particular XML element in said XML-based input stream, causing said XML processor to generate one or more messages that indicate to the application how the application is to process said particular XML element, by identifying one or more annotations that are associated with said particular XML element.

In the above feature of Claim 1, an XML processor is configured to send validated XML data to an application. While validating a particular XML element from an XML-based input stream, the XML processor is caused to generate one or more messages that indicate to the application how the application is to process that particular XML element.

The Office Action asserts that the above feature of Claim 1 is described in SIJACIC. This assertion is incorrect.

As discussed above, in paragraph [0060] SIJACIC clearly describes that the validation logic in the XML servlet ensures that a request message conforms to a particular DTD and includes data that is in the correct locations, context, and comprises correct information. If the request message does not conform to the DTD the request message is denied processing, while a valid request message may be further processed by an XML DOM API that uses an XML parser to produce a DOM corresponding to the request message. (See SIJACIC, paragraphs [0061]-[0062].) Significantly, however, SIJACIC does not describe that the validation logic in the XML servlet generates or passes to the XML DOM API any messages that indicate to the XML DOM API how the XML DOM API is to process the request message. Rather, the validation logic in the XML servlet simply passes a valid request message to the XML DOM API for further processing. (See SIJACIC, paragraphs [0061]-[0062].)

In contrast, Claim 1 comprises the feature of: **while validating a particular XML element in said XML-based input stream, causing said XML processor to generate one or more messages that indicate to the application how the application is to process said particular XML element.** It is respectfully submitted that neither the paragraphs from SIJACIC cited in the Office Action nor any other paragraphs of SIJACIC describe or suggest this feature

of Claim 1. Furthermore, it is respectfully submitted that FRY does not describe or suggest this feature of Claim 1 either.

For the foregoing reasons, FRY and SIJACIC do not describe or suggest all features of Claim 1. Thus, Claim 1 is patentable under 35 U.S.C. § 103(a) over FRY in view of SIJACIC. Reconsideration and withdrawal of the rejection of Claim 1 is respectfully requested.

B. INDEPENDENT CLAIM 13

Independent Claim 13 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over FRY in view of SIJACIC. The rejection is respectfully traversed.

Claim 13 comprises the features of:

while performing a validation operation on an XML-based input stream,
performing the steps of:
receiving a request for particular information; and
responding to said request by providing said particular information;
wherein said particular information comprises one or more of:
the name of a node **currently being processed;**
the data type of the node **currently being processed;**
the current validation mode for the node **currently being processed**, wherein
the current validation mode is one of strict mode, lax mode, and skip
mode;
the **current state** of said validation operation; and
annotations that are associated with the node **currently being processed.**

It is respectfully submitted that the above features of Claim 13 are not described or suggested by FRY and SIJACIC.

The Office Action seems to assert that FRY describes the features of Claim 13 of **while performing a validation operation on an XML-based input stream, performing the steps of: receiving a request for particular information; and responding to said request by providing said particular information.** This assertion is incorrect.

In general, FRY describes a streaming XML parser that is capable of instantiating an API that is appropriate for the XML document being parsed and the receiving application. (See

FRY, paragraph [0016].) The APIs that can be instantiated are: (1) streaming parser API that does not validate; (2) streaming parser API that does not validate, but which can read information for the XML document being validated from a DTD or an XML schema; and (3) streaming parser API that can validate an XML document against a DTD or an XML schema. (See FRY, paragraph [0017].)

Significantly, however, FRY does not describe that any of the parser API's are operable to respond to requests while performing a validation operation, as featured in Claim 13. In fact, most of the XML processing operations described in FRY involve parsing XML documents in a streaming fashion. (See, for example, FRY, paragraphs [0029]-[0031] and [0033]-[0034].) The only description of a validation parsing operation is provided in paragraph [0023] of FRY as follows:

[0023] For non-validating parsing, a parser can be provided that can read the DTD and process its information to use during parsing. **For validating parsing, a validating parser can be provided that reads in a schema or DTD and uses this to validate the XML document. This validation can be streaming, such that it does not require the entire document to be loaded at one time.** (Emphasis added.)

Thus, the above paragraph of FRY describes a validating parser that can read a schema or a DTD and use it to validate an XML document in a streaming fashion that does not require the entire document to be loaded at one time. FRY does not describe, however, that the validating parser is operable to **receive requests while performing a validation operation, and responding to the requests** with the requested information.

In contrast, Claim 13 comprises the features of while performing a validation operation on an XML-based input stream, performing the steps of: receiving a request for particular information; and responding to said request by providing said particular information.

It is respectfully submitted that neither the paragraphs from FRY cited in the Office Action nor any other paragraphs of FRY describe or suggest the above features of Claim 13. Furthermore, as discussed above with respect to Claim 1, SIJACIC also fails to describe an XML processor that is capable of responding to requests for information while the XML processor **is performing a validation operation** on an **XML-based input stream**.

For the foregoing reasons, FRY and SIJACIC do not describe or suggest all features of Claim 13. Thus, Claim 13 is patentable under 35 U.S.C. § 103(a) over FRY in view of SIJACIC. Reconsideration and withdrawal of the rejection of Claim 13 is respectfully requested.

C. INDEPENDENT CLAIM 39

Claim 39 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over FRY in view of SIJACIC.

Claim 39 includes features similar to the features of Claim 13 discussed above. Thus, Claim 39 is patentable under 35 U.S.C. § 103(a) over FRY in view of SIJACIC for at least the reasons given above with respect to Claim 13.

In addition, Claim 39 includes the feature of a validator that comprises a state machine that responds to requests for particular information associated with a first element in said XML-based input stream, while validating said first element. The Office Action did not identify, and the Applicants could not find, any passages or structures in FRY and SIJACIC that correspond to a validator comprising a state machine that is operable to respond to requests while validating particular elements.

For the foregoing reasons, FRY and SIJACIC do not describe or suggest all features of Claim 39. Thus, Claim 39 is patentable under 35 U.S.C. § 103(a) over FRY in view of

SIJACIC. Reconsideration and withdrawal of the rejection of Claim 39 is respectfully requested.

D. INDEPENDENT CLAIMS 48 AND 54

Claims 48 and 54 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over FRY in view of SIJACIC.

Claims 48 and 54 include features similar to the features of Claims 1 and 13, respectively, except in the context of a computer-readable medium. Thus, Claims 48 and 54 are patentable under 35 U.S.C. § 103(a) over FRY in view of SIJACIC for at least the reasons given above with respect to Claims 1 and 13. Reconsideration and withdrawal of the rejections of Claims 48 and 54 is respectfully requested.

E. DEPENDENT CLAIMS 2-6, 14-25, 40-44, 49-53, AND 55-69

Claims 2-6, 14-25, 40-44, 49-53, and 55-69 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over FRY in view of SIJACIC.

Each of Claims 2-6, 14-25, 40-44, 49-53, and 55-69 depends from one of independent Claims 1, 13, 39, 48, and 54 and thus includes each and every feature of the corresponding base claim. Thus, each of Claims 2-6, 14-25, 40-44, 49-53, and 55-69 is allowable for the reasons given above for Claims 1, 13, 39, 48, or 54. In addition, each of Claims 2-6, 14-25, 40-44, 49-53, and 55-69 introduces one or more additional features that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those features is not included at this time. Therefore, it is respectfully submitted that Claims 2-6, 14-25, 40-44, 49-53, and 55-69 are allowable for the reasons given above with respect to Claims 1, 13, 39, 48, and 54.

Reconsideration and withdrawal of the rejections of Claims 2-6, 14-25, 40-44, 49-53, and 55-69 is respectfully requested.

II. CONCLUSION

The Applicants believe that all issues raised in the final Office Action have been addressed. Further, for the reasons set forth above, the Applicants respectfully submit that allowance of the pending claims is appropriate. Reconsideration of the present application is respectfully requested in light of the remarks herein.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, a law firms check for the petition for extension of time fee is enclosed herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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